

REMARKS

Claims 1 – 58 are pending in the present application, of which claims 23 – 34 have been withdrawn from consideration. By this Amendment, claims 1-4, 7-18, 36, 37, 41-44, 47, 49, 50, 53 and 54 have been amended. No new matter has been added. It is respectfully submitted that this Amendment is fully responsive to the Office Action dated January 6, 2004.

Allowable Claim Subject Matter:

Applicants gratefully acknowledge the indication in item 7 of the Office Action that claims 3, 4, 9, 10, 13, 14, 17, 18, 21, 22 and 35 - 46 have been allowed.

Applicants also gratefully acknowledge the indication in item 6 of the Office Action that claims 7, 8, 11, 12, 15, 16, 19, 20 and 49-58 would be allowable, if amended, to include all of the limitations of their respective base and intervening claims.

However, for at least the reasons discussed below, it is respectfully submitted that all of claims 1, 5 – 22 and 48 - 58 are allowable.

Title of the Invention:

The Title of the Invention stand objected to in item 2 of the Action as being not descriptive. However, the Title has been amended to read as “BAR CODE READER HAVING A ROTATORY OPTICAL DEFLECTOR AND A ROTATION PSOTION DETECTOR.” It is submit that such Title is descriptive of the present invention. Accordingly, withdrawal of this objection is respectfully requested.

Claim Objections:

Claims 1-4, 7-18, 36, 37, 41-44, 47, 49, 50, 53 and 54 stand objected to item 3 of the Action due to minor informalities. However, each of claims 1 - 4, 7-18, 36, 37, 41-44, 49, 50, 53 and 54 have been amended to correct such informalities. Accordingly, withdrawal of this objection to the claims is respectfully requested.

As To The Merits:

As to the merits of this case, the Examiner sets forth the following:

claims 1, 2, 5, 6, 47 and 48 stand rejected under 35 U.S.C. §102(b) as being anticipated by Khowles (U.S. Patent No. 4,958,894).

This rejection is respectfully traversed.

Independent Claims 1 and 2:

Independent claims 1 and 2 each call for a means for stopping the rotation of the rotatory optical deflector for only a predetermined time length upon a laser beam scanning time length reaching a preset scanning time length up to a final position of the bar code reading after the bar code reading is started by the means for starting the bar code reading.

For example, as discussed in pages 18 and 19 of the present specification with reference to the flow chart of Fig. 13, in step S7, the bar code reading is started, and in a step S8, measurement of a laser beam scanning time by the rotatory mirror is started. In a step S9, the

process waits until a measurement time reaches a preset scanning time length up to the final position of the bar coding reading, and upon reaching the preset scanning time length, the motor 7 is stopped through locking in a step S10. Thereafter, in a step S11, the motor 7 is stopped for a predetermined time length as optionally preset, and in a step S12, completion of the bar coding reading is checked.

The applied reference of Khowles fails to disclose any type of measurement with regard to a laser beam scanning time. That is, Khowles is just not concerned with a laser beam scanning time length reaching a preset scanning time length.

Instead, Khowles contemplates a device that is be pulsed or energized in only one direction to move the mirror 34(or other reflective surface) in one direction until the bumper 74 is engaged, whereupon the device is bounced back in the opposite direction until it reaches the other bumper 74.

That is, since Khowles moves the device until the bumper 74 is engaged and then moves it back in the opposite direction until the other bumper 74 is engaged, Knowles simply has no need for measuring a laser beam scanning time length and determining whether it reaches a preset scanning time length.

Thus, Khowles clearly fails to teach the features of independent claims 1 and 2 regarding a means for stopping the rotation of the rotatory optical deflector for only a predetermined time length upon a laser beam scanning time length reaching a preset scanning

time length up to a final position of the bar code reading after the bar code reading is started by the means for starting the bar code reading.

Independent Claim 47:

Independent claim 47 calls for a means for detecting rotation position of the rotatory optical deflector at two spots corresponding to opposite edges of a laser beam scanning range of a bar code, respectively; and a means for stopping rotation of the rotatory optical deflector for only a predetermined time length upon the means for detecting rotation position detecting the rotation position of the rotatory optical deflector at the two spots, respectively.

In contrast, Khowles discloses bumpers 74 stopping at a position corresponding to a laser beam scanning range of a bar code. This is simply to control physically the rotation positions of the both ends in the rotary members to reverse the rotation direction. Khowles does not suggest anything disclosed in the present invention i.e. detecting positions of the both ends, and controlling to stop for only a predetermined time length, thereby acknowledging and confirming a scanning position and width of the laser beam easily as well as adjusting manually to optimize the position.

Accordingly, it is respectfully submitted that claim 47 is not anticipated nor obvious over Khowles, and therefore should be allowed.

Independent Claim 48:

Independent claim 48 calls for a means for reducing a rotation speed of the rotatory optical deflector during a time period from a time of the means for detecting rotation position detecting a rotation position of the rotatory optical deflector corresponding to a scanning start edge, up to a time of the means for detecting rotation position detecting a rotation position of the rotatory optical deflector corresponding to a scanning completion edge, from a rotation speed in other periods.

It is respectfully submitted that the applied reference of Khowles in not concerned with reducing a rotation speed of a rotatory deflector. Instead, as discussed above, Khowles moves the device until the bumper 74 is engaged and then moves it back in the opposite direction until the other bumper 74 is engaged without any type of reduction in the rotation speed of the device.

Thus, Khowles fails to disclose the features of claim 48 concerning a means for reducing a rotation speed of the rotatory optical deflector during a time period from a time of the means for detecting rotation position detecting a rotation position of the rotatory optical deflector corresponding to a scanning start edge, up to a time of the means for detecting rotation position detecting a rotation position of the rotatory optical deflector corresponding to a scanning completion edge, from a rotation speed in other periods.

Response under 37 C.F.R. §1.111
Attorney Docket No. 010705
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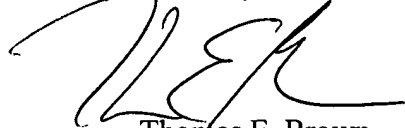
In view of the aforementioned amendments and accompanying remarks, Applicant submits that the claims, as herein amended, are in condition for allowance. Applicant requests such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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